

**Replacement Abstract**

**ABSTRACT**

A novel ~~growth~~ growing method is provided for pluripotent stem cells such as ES cells. The method of the invention is a pluripotent stem cell growing method and gene transfer method in which pluripotent stem cells are cultured under conditions that maintain their undifferentiated state and pluripotency, the method being characterized by using a liquid medium and a culturing vessel having immobilized or coated on a substrate solid phase surface a molecule which is adhesive to the pluripotent stem cells in a fixed concentration, to grow the pluripotent stem cells in a dispersed state while maintaining their undifferentiated state and pluripotency, without using feeder cells, or to transfer and express a gene therein.